19/3,K/1 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO

05596648 **Image available**
PORTABLE TYPE ELECTRONIC EQUIPMENT

PUB. NO.: 09-211448 [JP 9211448 A]
PUBLISHED: August 15, 1997 (19970815)
INVENTOR(s): MATSUKAWA HIDEKI
APPLICANT(s): MATSUSHITA ELECTRIC IND CO LTD [000582] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 08-017705 [JP 9617705]
FILED: February 02, 1996 (19960202)

...JAPIO KEYWORD: **Light Emitting Diodes** , LED)

ABSTRACT

...SOLUTION: A **portable** type **terminal** equipment is provided which has a fluorescence tube, a lamp, and a LED 10 **set** on a main body face of the portable equipment 1 having a display part 2 using a **color** filter or on the cover side of the display part 2, or makes them illuminate...

...the spectral energy distribution of the fluorescence tube, the lamp, and the LED 10 is **set** to match a **color** of the **color** filter. Since the equipment has no **back light** , it does not have excess space nor weight, and can provide a configuration sufficient to give an excellent contrast for a display performance, a **brightness** , and a hue, and the use of this configuration makes a display sufficiently recognizable also in a dark place even with a **color** display reflection type liquid crystal display.

19/3,K/2 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014144132 **Image available**
WPI Acc No: 2001-628343/200173
Related WPI Acc No: 2000-516382
XRPX Acc No: N01-468606
Method of controlling RGB back light **display** device **for a** portable **electronic** device **by maintaining sum of currents flowing through light emitters at** set **current value using current controller**
Patent Assignee: NEC CORP (NIDE)
Inventor: NAKAMURA T
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2355841	A	20010502	GB 20001316	A	20000120	200173 B
			GB 20011988	A	20010125	

Priority Applications (No Type Date): JP 9912320 A 19990120
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2355841	A		32	G09G-003/34	Derived from application GB 20001316

Method of controlling RGB back light **display** device **for a** portable **electronic** device **by maintaining sum of currents flowing through light emitters at** set **current value using current controller**

Abstract (Basic):
... An image is displayed on a display device at given **brightness** . A **color** of the image displayed on the display device is changed while maintaining the **brightness** of the image at a **set** value when the **color** is changed. The display device has a number of light emitters such as red, green and blue **LEDS** (1-3) by maintaining a sum of currents flowing through the light emitters at a **set** current value using a current controller (14).

... In a **back - light** display **device** of a **portable** electronic **device** .
...

...Capable of developing a desired **color** for display and maintaining **intensity** of **brightness** regardless of a displayed **color** .
...

...The drawing is a circuit diagram of one embodiment of an **RGB** **back** **light** display **device** for a **portable** electronic **device** according to the present invention...
...red, green and blue **LEDS** (1-3
...Title Terms: **RGB** ;

25/3,K/1 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO

06324695 **Image available**
DEVICE AND METHOD FOR DISPLAYING **BACKLIGHT** OF **PORTABLE TELEPHONE** SET

PUB. NO.: 11-266295 [JP 11266295 A]
PUBLISHED: September 28, 1999 (19990928)
INVENTOR(s): MATSUSHITA AKEMASA
APPLICANT(s): NEC SAITAMA LTD
NEC CORP
APPL. NO.: 10-065505 [JP 9865505]
FILED: March 16, 1998 (19980316)

DEVICE AND METHOD FOR DISPLAYING **BACKLIGHT** OF **PORTABLE TELEPHONE** SET

ABSTRACT
PROBLEM TO BE SOLVED: To set **backlight** in color that is preferred by a user and is easy to see by including plural **pulse width modulator** circuits which change the pulse width in a controlling means, inputting pulses outputted from plural **pulse width modulator** circuits to plural LED drive transistors and making plural **light - emitting diodes** emit light by outputs of the plural LED drive transistors.
SOLUTION: An output of a 1st **PWM** circuit 3 of a control means 2 is connected to the base of a 1st...

... transistor 6 is grounded and an output of the collector is connected to a 1st **light - emitting diode** 9 which emits light in red. Similarly, an output of a 2nd **PWM** circuit 4 is grounded to the emitter of a 2nd LED drive transistor 7 and an output of the collector is connected to a 2nd **light - emitting diode** 10 which emits light in green. An output of a 3rd **PWM** circuit 5 is grounded to the emitter of a 3rd LED drive transistor 8, and...

25/3,K/2 (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO

05881088 **Image available**
PORTABLE TERMINAL

PUB. NO.: 10-164188 [JP 10164188 A]
PUBLISHED: June 19, 1998 (19980619)
INVENTOR(s): INOUE SATOSHI
APPLICANT(s): KYOCERA CORP [358923] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 08-319264 [JP 96319264]
FILED: November 29, 1996 (19961129)

PORTABLE TERMINAL
...JAPIO KEYWORD: **Light Emitting Diodes** , LED)

ABSTRACT
PROBLEM TO BE SOLVED: To decrease the turn-on frequency and time of a **back light** and to reduce the power consumption by preparing a light detection circuit including a photodetector...

...circuit and also to evenly illuminate a large LCD part by increasing the number of **back light** LED...
...an LCD part 2. Then the circuit 1 converts the peripheral light quantity of a **portable terminal** into **voltage** to input it to an A/D port of a CPU 3 and then converts the **voltage** value proportional to the light quantity into the digital value. The CPU 3 controls a **back light** based on the result of comparison obtained between the digital **voltage** value and the prescribed value. That is, it's decided that the part 2 is satisfactorily bright and the supply of power is cut off to a **back light**

driver 5 of a power circuit 4 when the light quantity is larger than the prescribed value. Then all **back light** LED 6 are turned off. When the light quantity is smaller than the prescribed value...

25/3,K/3 (Item 3 from file: 347)
DIALOG(R)File 347:JAPIO

05862375 **Image available**
PORTABLE TERMINAL EQUIPMENT

PUB. NO.: 10-145475 [JP 10145475 A]
PUBLISHED: May 29, 1998 (19980529)
INVENTOR(s): TSUNODA HISAMI
URABE KENZO
ONO YASUHIRO
SUZUKI HIROSHI
APPLICANT(s): KOKUSAI ELECTRIC CO LTD [000112] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 08-294763 [JP 96294763]
FILED: November 07, 1996 (19961107)

PORTABLE TERMINAL EQUIPMENT
...JAPIO KEYWORD: **Light Emitting Diodes** , LED)

ABSTRACT

PROBLEM TO BE SOLVED: To improve convenience by easily discriminating the operating state of **portable terminal** equipment by providing light emitting elements in plural colors as **backlights** for a liquid crystal display part and changing display colors on the liquid crystal display...

... 13 supplies power to respective parts and outputs a signal expressing the quantity of stored **electricity** to a control part 11. While receiving the input of signal expressing the quantity of stored **electricity** from the battery, corresponding to that quantity of stored **electricity** , the control part 11 turns on or turns off a green LED 1 7 or...

... liquid crystal display part 19 according to the patterns of light emission stored in a **backlight** color setting memory 16. Namely, when sufficient **electricity** is stored in the battery, the green LED 17 is turned on and the red LED 18 is turned off. When **electricity** stored in the battery is lacked, the green LED 17 is turned off and the...

25/3,K/4 (Item 4 from file: 347)
DIALOG(R)File 347:JAPIO

05790953 **Image available**
PORTABLE TERMINAL DEVICE AND HEAD MOUNT DISPLAY

PUB. NO.: 10-074053 [JP 10074053 A]
PUBLISHED: March 17, 1998 (19980317)
INVENTOR(s): SATO YASUSHI
APPLICANT(s): KAWAI MUSICAL INSTR MFG CO LTD [350908] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 08-248756 [JP 96248756]
FILED: August 30, 1996 (19960830)

PORTABLE TERMINAL DEVICE AND HEAD MOUNT DISPLAY
...JAPIO KEYWORD: **Light Emitting Diodes** , LED)

ABSTRACT

PROBLEM TO BE SOLVED: To provide a **portable terminal device** which consumes less electric power and has excellent operability...

...is formed as a head mount display for the single eye. The need for a

back light is eliminated by adopting a liquid crystal panel of a transmission type. The display device...
... solar battery 111. The electric power generated by this solar battery 111 is used as **power source** electric power.

25/3,K/5 (Item 5 from file: 347)
DIALOG(R)File 347:JAPIO

05740029 **Image available**
PORTABLE TERMINAL EQUIPMENT

PUB. NO.: 10-023129 [JP 10023129 A]
PUBLISHED: January 23, 1998 (19980123)
INVENTOR(s): KONISHI YUSUKE
APPLICANT(s): SONY CORP [000218] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 08-176577 [JP 96176577]
FILED: July 05, 1996 (19960705)

PORTABLE TERMINAL EQUIPMENT
...JAPIO KEYWORD: **Light Emitting Diodes** , LED); R130 (ELECTRIC COMMUNICATIONS

ABSTRACT
PROBLEM TO BE SOLVED: To reduce power consumption by **backlight** .

...

...is discriminated in the step 3. In the case of the automatic mode (Y), a **current** time is read from a real time clock RTC in the step 4 and whether
...

... not a prescribed lighting time is reached in the step 5 is discriminated. When the **current** time enters the lighting time (Y), control of lighting for 10sec, for example, is applied to a **back light** lighting section in the step 6. Moreover, another usual processing is conducted in the step

25/3,K/6 (Item 6 from file: 347)
DIALOG(R)File 347:JAPIO

05646519 **Image available**
PORTABLE TYPE RADIO COMMUNICATION EQUIPMENT AND ILLUMINATION CONTROL METHOD THEREFOR

PUB. NO.: 09-261319 [JP 9261319 A]
PUBLISHED: October 03, 1997 (19971003)
INVENTOR(s): TERAJIMA KAZUHIKO
NAKAZAWA TAKAKI
APPLICANT(s): SONY CORP [000218] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 08-090556 [JP 9690556]
FILED: March 19, 1996 (19960319)

...JAPIO KEYWORD: **Light Emitting Diodes** , LED)

ABSTRACT
PROBLEM TO BE SOLVED: To avoid the further **voltage** drop of a battery **voltage** during a transmission period concerning a time-division multiple access(TDMA) system **portable telephone** .

...
...SOLUTION: In the TDMA system **portable telephone** , the **PWM** drive of **backlight** of a liquid crystal display 16 is performed. This telephone is

provided with a register 42 for holding the set value of pulse width of **PWM** driving and a decoder 41 for decoding the count value of a time base counter...

...cutting off power supply from a secondary battery 19 to a white electric bulb for **backlight** . Corresponding to the detection output of a detection circuit 47 for the terminal **voltage** of the secondary battery 19, the power supply cut-off due to this signal Scb

25/3,K/7 (Item 7 from file: 347)
DIALOG(R)File 347:JAPIO

05403765 **Image available**
PORTABLE TELEPHONE SET

PUB. NO.: 09-018565 [JP 9018565 A]
PUBLISHED: January 17, 1997 (19970117)
INVENTOR(s): TAKAGI KOTARO
APPLICANT(s): SONY CORP [000218] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 07-183375 [JP 95183375]
FILED: June 27, 1995 (19950627)

PORTABLE TELEPHONE SET
...JAPIO KEYWORD: **Light Emitting Diodes** , LED); R131 (INFORMATION PROCESSING

ABSTRACT
PURPOSE: To use the **portable telephone** set which can be mounted on a vehicle for a long time although a midget lamp is used as the **back light** for the LCD of the **portable telephone** set...

...CONSTITUTION: This **portable telephone** set is provided with the LCD 14 which displays various information and a small-sized incandescent lamp 41 which lightens the LCD 14. Further, plural keys 15 and 16 and **LEDs** 43N-43N which lighten the keys 15 and 16 are provided. When the **portable telephone** set is not connected to an external **power source** , the small-sized incandescent lamp 41 and **LEDs** 43A-43N are turned on for a specific time at key input time and termination time. When the **portable telephone** set is connected to some external **power source** , the **LEDs** 43A-43N are always turned on and the small-sized incandescent lamp 41 is turned...

25/3,K/8 (Item 8 from file: 347)
DIALOG(R)File 347:JAPIO

04150628 **Image available**
PORTABLE POSITION SURVEYING **DEVICE**

PUB. NO.: 05-142328 [JP 5142328 A]
PUBLISHED: June 08, 1993 (19930608)
INVENTOR(s): KOMAKI NORIO
APPLICANT(s): MATSUSHITA ELECTRIC IND CO LTD [000582] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 03-302935 [JP 91302935]
FILED: November 19, 1991 (19911119)
JOURNAL: Section: P, Section No. 1616, Vol. 17, No. 522, Pg. 146, September 20, 1993 (19930920)

PORTABLE POSITION SURVEYING **DEVICE**
...JAPIO KEYWORD: **Light Emitting Diodes** , LED)

ABSTRACT
PURPOSE: To reduce the consumption of **electricity** for prolonging the

period of usability of a position surveying device and make it possible...

...CONSTITUTION: Illuminating means 15, 16 consist of LED are arranged for **backlight** illumination of a display means 12 and an operation means 13 with consideration to the...

25/3,K/9 (Item 9 from file: 347)
DIALOG(R)File 347:JAPIO

04103695 **Image available**
PORTABLE RADIO TELEPHONE SYSTEM

PUB. NO.: 05-095395 [JP 5095395 A]
PUBLISHED: April 16, 1993 (19930416)
INVENTOR(s): KITAMURA SHINICHI
APPLICANT(s): MATSUSHITA ELECTRIC IND CO LTD [000582] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 03-253352 [JP 91253352]
FILED: October 01, 1991 (19911001)
JOURNAL: Section: E, Section No. 1415, Vol. 17, No. 444, Pg. 103, August 16, 1993 (19930816)

PORTABLE RADIO TELEPHONE SYSTEM
...JAPIO KEYWORD: **Light Emitting Diodes** , LED)

ABSTRACT
...night by turning on a light source provided on an on-vehicle holder when a **portable radio telephone** main body is mounted on the on-vehicle holder...
...CONSTITUTION: By using a car battery as a **power source** , an on-vehicle holder 11 having a charging function is provided with a charging circuit 12 which charges a battery 2 of a **portable radio telephone** main body. This battery circuit 12 is connected with a **power source** cord 14 supplying power from the car battery and an external light source 15 for a **back light** placed at the opposite position to a light transmission plate end part 7 of a...

25/3,K/10 (Item 10 from file: 347)
DIALOG(R)File 347:JAPIO

03981445 **Image available**
PORTABLE TELEPHONE TERMINAL EQUIPMENT

PUB. NO.: 04-346545 [JP 4346545 A]
PUBLISHED: December 02, 1992 (19921202)
INVENTOR(s): TOMII YUTAKA
APPLICANT(s): NEC CORP [000423] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 03-149498 [JP 91149498]
FILED: May 24, 1991 (19910524)
JOURNAL: Section: E, Section No. 1354, Vol. 17, No. 203, Pg. 118, April 21, 1993 (19930421)

PORTABLE TELEPHONE TERMINAL EQUIPMENT
...JAPIO KEYWORD: **Light Emitting Diodes** , LED)

ABSTRACT
... enable a user to easily and surely confirm a battery alarm function indispensable to a **portable telephone** set...

...A liquid crystal display LCD 1 is controlled by a control circuit 3, and a **back light** 2 of the LCD 1 contains plural **light emitting diodes** LED of different emitting colors. The terminal **voltage** of a battery 8 is transmitted to the circuit 3 as the digital information through a D/A

converter 7. Then the emitting colors of the **LEDs** of the light 2 are changed when the terminal **voltage** is reduced less than a prescribed level.

25/3,K/11 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2002 Thomson Derwent. All rts. reserv.

012707361 **Image available**
WPI Acc No: 1999-513470/199943
XRPX Acc No: N99-383109
Lighting system for permeable LCD panel - shifts phase of multiple LED set sequentially and impresses driving pulse to transistors
Patent Assignee: SONY CORP (SONY)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 11223805	A	19990817	JP 9827607	A	19980209	199943	B

Priority Applications (No Type Date): JP 9827607 A 19980209
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 11223805	A		5	G02F-001/133	

...Abstract (Basic): NOVELTY - The **back light** (27A) has several set of white **LEDs** (7a-7m,8a-8m,9a-9m) mutually connected in parallel. The illuminating light from **back light** is radiated to LCD panel (1). A controller (2) of control unit (30) shift the...
...USE - For illuminating permeable LCD panel of OA **apparatus** , video camera and **portable telephone** .
...
...ADVANTAGE - Reduces the noise **current** flowed to the light emission source and outputs stable white light. DESCRIPTION OF DRAWING(S...

...part of lighting system. (1) LCD panel; (2) Controller; (7a-7m,8a-8m,9a-9m) **LEDs** ; (18-20) Transistors; (27A) **Back light** ; (30) Control unit

25/3,K/12 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2002 Thomson Derwent. All rts. reserv.

011916608 **Image available**
WPI Acc No: 1998-333518/199829
XRPX Acc No: N98-260276
LCD device **e.g. for** cellular telephone **- has phosphorescent layer emitting light at predetermined frequency and intensity after stimulation by** backlight **LED or ambient light between front and rear light transmissive panels**
Patent Assignee: ERICSSON INC (TELF)
Inventor: FLYNN J M
Number of Countries: 078 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9825175	A1	19980611	WO 97US22029	A	19971208	199829	B
AU 9853690	A	19980629	AU 9853690	A	19971208	199845	
US 5815228	A	19980929	US 96761176	A	19961206	199846	

Priority Applications (No Type Date): US 96761176 A 19961206
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9825175	A1	E	25	G02F-001/1335	

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA

UG UZ VN YU ZW
Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
AU 9853690 A G02F-001/1335 Based on patent WO 9825175
US 5815228 A G02F-001/1335

LCD device **e.g. for** cellular telephone - ...

...**has phosphorescent layer emitting light at predetermined frequency and intensity after stimulation by** backlight **LED or ambient light between front and rear light transmissive panels**

...Abstract (Basic): A **light emitting diode** (62), for illuminating an LCD display, is located next to the phosphorescent layer with the diode being powered by a **voltage** pulse train having a low **duty cycle** . The phosphorescent layer may be provided by coating the rear polariser of the display with...

...ADVANTAGE - Has reduced power consumption, with improved **backlighting** performance...
?

28/3,K/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

011591037 **Image available**
WPI Acc No: 1998-008166/199801
Related WPI Acc No: 1995-254515
XRAM Acc No: C98-002848
XRPX Acc No: N98-006463
Portable electronic device with a miniature virtual image display - in which a chip with an LED array, a window frame, a mounting board carrying control circuits and image optics are mounted so as to minimise total package size
Patent Assignee: MOTOROLA INC (MOTI)
Inventor: NELSON R J; STAFFORD J W
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 5689279	A	19971118	US 94216995	A	19940324	199801	B
			US 95415286	A	19950403		

Priority Applications (No Type Date): US 94216995 A 19940324; US 95415286 A 19950403
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5689279	A		18	G09G-003/32	Div ex application US 94216995 Div ex patent US 5432358

Portable **electronic** device **with a miniature virtual image display**...

...Abstract (Basic): **Portable** electronic **device** with a visual display has a miniature virtual image display with a viewing aperture and includes a chip (10) with a pixel array of light emitting devices (**LEDs**) which cooperate to generate a real image. The electrodes of the **LEDs** are connected to external connection and mounting pads at the edges of the chip. A...

...substrate. A mounting board (55) is provided with driver and controller circuits (57) for the **LEDs** mounted on one side with electrical connection through to the second side (58) on which...

...USE - as a **portable** communications **device** , especially a **cellular telephone** , two-way **radio** or pager (claimed) for eg police or security forces in which visual information of eg...

...greatly reduced without the need to reduce the size of the display array. A small **handheld device** may easily include a 200 x 200 LED array
International Patent Class (Main): **G09G-003/32**

28/3,K/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

011572609 **Image available**
WPI Acc No: 1997-549090/199750
XRPX Acc No: N97-457865
Smart driver for array of LEDs **e.g. for** portable **electronic** device **display - uses controlled power supply with terminals coupled to column and row drivers and control terminal coupled to control power applied between terminals**
Patent Assignee: MOTOROLA INC (MOTI)
Inventor: NORMAN M; SO F; WEI C; NORMAN M P
Number of Countries: 007 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 5684368	A	19971104	US 96660827	A	19960610	199750	B

EP 813180 A1 19971217 EP 97109106 A 19970605 199804
JP 10063228 A 19980306 JP 97165112 A 19970605 199820
TW 375726 A 19991201 TW 97105520 A 19970428 200042
CN 1179586 A 19980422 CN 97105444 A 19970609 200222

Priority Applications (No Type Date): US 96660827 A 19960610
Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
US 5684368 A 8 G05F-001/00
EP 813180 A1 E 11 G09G-003/32
Designated States (Regional): DE FR GB
JP 10063228 A 8 G09G-003/32
TW 375726 A G09G-003/20
CN 1179586 A G09G-003/32

Smart driver for array of LEDs **e.g. for** portable **electronic** device **display**...

...Abstract (Basic): A smart driver in combination with an **light emitting diode** including a column driver coupled to one terminal of the light emitting device and a...

...USE/ADVANTAGE - For driving arrays of **light - emitting diodes** (**LEDs**) as displays in **portable** electronic **devices** . Capable of maintaining the brightness of each light-emitting device in the array relatively constant...
...International Patent Class (Main): **G09G-003/32**

28/3,K/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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011484136 **Image available**
WPI Acc No: 1997-462041/199743
XRPX Acc No: N97-384750
LED drive circuit for portable device **e.g. CD player - has constant current circuit which drives several** LEDs **connected to its output end through conductive material**
Patent Assignee: KENWOOD CORP (TRIR)
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No Kind Date Applicat No Kind Date Week
JP 9212130 A 19970815 JP 9633147 A 19960129 199743 B

Priority Applications (No Type Date): JP 9633147 A 19960129
Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
JP 9212130 A 4 G09G-003/32

LED drive circuit for portable device **e.g. CD player**...

...**has constant current circuit which drives several** LEDs **connected to its output end through conductive material**

...Abstract (Basic): PCB is connected to a first PCB (10) through a flexible printing substrate (30). Multiple **LEDs** are connected mutually in the first PCB...

...One end of these **LEDs** are connected electrically to the output end of the booster circuit. A conductive material (32) made of polyethylene telephthalate, connects the other end of **LEDs** to the output end of the constant current circuit. The **LEDs** are driven by constant current output by the current circuit...
International Patent Class (Main): **G09G-003/32**

28/3,K/4 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX

011375124 **Image available**
WPI Acc No: 1997-353031/199733
XRPX Acc No: N97-292493
Drive apparatus for array of organic light emitting diodes **- has switches connected to current source or rest potential, several more switches are connected to power source, array has rows and columns of** light emitting diodes **with one contact to first switches and one contact to second**
Patent Assignee: MOTOROLA INC (MOTI)
Inventor: NORMAN M P; RHYNE G W; WILLIAMSON W L
Number of Countries: 005 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 784305	A1	19970716	EP 96120565	A	19961220	199733	B
JP 9281902	A	19971031	JP 9713130	A	19970108	199803	
US 5719589	A	19980217	US 96584827	A	19960111	199814	

Priority Applications (No Type Date): US 96584827 A 19960111
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 784305	A1	E	9	G09G-003/32	
Designated States (Regional): DE FR GB					
JP 9281902	A		9	G09F-009/33	
US 5719589	A		9	G09G-003/32	

Drive apparatus for array of organic light emitting diodes **- ...**

...**potential, several more switches are connected to power source, array has rows and columns of** light emitting diodes **with one contact to first switches and one contact to second**

...Abstract (Basic): switches (40) are connected to a power source (45). An array includes several rows of **light emitting diodes** and a column of **light emitting diodes** . Each diode has a contact connected to the first switches and a second contact connected...

...USE/ADVANTAGE - For small **portable** electronic **devices** e.g. pagers, **cellular** and portable phones, two-way radios, data banks. Provides **light emitting diode** array and driving apparatus in which column charges are rapidly removed to obtain high quality...
...Abstract (Equivalent): switches (40) are connected to a power source (45). An array includes several rows of **light emitting diodes** and a column of **light emitting diodes** . Each diode has a contact connected to the first switches and a second contact connected...

...USE/ADVANTAGE - For small **portable** electronic **devices** e.g. pagers, **cellular** and portable phones, two-way radios, data banks. Provides **light emitting diode** array and driving apparatus in which column charges are rapidly removed to obtain high quality...
...International Patent Class (Main): **G09G-003/32**

28/3,K/5 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX

011113365 **Image available**
WPI Acc No: 1997-091290/199709
XRPX Acc No: N97-075213
Light - emitting diode **display for showing various data e.g. character, numerical character, symbol - has display screen whose display contents are altered and displayed by passing signal to infrared light receiver through** infrared remote **control** unit **which is sepd. from display**
Patent Assignee: YAMASHITA DENKI KK (YAMA-N)

Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 8328510	A	19961213	JP 95155285	A	19950530	199709	B

Priority Applications (No Type Date): JP 95155285 A 19950530
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 8328510	A		5	G09G-003/32	

Light - emitting diode **display for showing various data e.g. character, numerical character, symbol...**
...whose display contents are altered and displayed by passing signal to infrared light receiver through infrared remote **control** unit **which is sepd. from display**

...Abstract (Basic): The display has a display screen (1) made of several arranged **light - emitting diodes** . A controller (7) regulates the display data. A driving unit (6) controls the ON-OFF switching of the **LEDs** in the display screen. An infrared light receiver (2a) informs the controller that an input...

...are altered and displayed by passing the signal to the infrared light receiver through an **infrared remote** control **unit** which is sepd. from the display...
International Patent Class (Main): **G09G-003/32**

28/3,K/6 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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010849165 **Image available**
WPI Acc No: 1996-346118/199635
XRPX Acc No: N96-291410
Portable **information display** terminal **for newspaper printing press - has display part with LED which reproduces images based on serial data output from second output unit**
Patent Assignee: HITACHI LTD (HITA)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 8160884	A	19960621	JP 94299750	A	19941202	199635	B

Priority Applications (No Type Date): JP 94299750 A 19941202
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 8160884	A		21	G09F-009/33	

Portable **information display** terminal **for newspaper printing press...**

...Abstract (Basic): data reception units in parallel as per arbitrary timing. A data display part has multiple **LEDs** which emits light based on output of second output unit...
...International Patent Class (Additional): **G09G-003/32**

28/3,K/7 (Item 7 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2002 Thomson Derwent. All rts. reserv.

004737098
WPI Acc No: 1986-240440/198637
XRPX Acc No: N86-179656
Hazardous material handling information system for emergency services - uses microprocessor to accept data and generate LCD display of appropriate hazard handling information
Patent Assignee: BATAILLE G (BATA-I)

Inventor: BATAILLE G
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
FR 2576699	A	19860801	FR 851167	A	19850125	198637	B

Priority Applications (No Type Date): FR 851167 A 19850125
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
FR 2576699	A		13		

...Abstract (Basic): The information system comprises a **portable unit** which uses a microprocessor to accept input data on the nature of the hazardous material and to then signal, through **light - emitting diodes** , the appropriate actions to take in overcoming the hazard...

...a variety of hazards is marked on the front panel of the unit, with a **light - emitting diode** placed beside each entry in the response list. The microprocessor illuminates the diodes appropriate to...
...International Patent Class (Additional): **G09G-003/32**

32/3,K/1 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO

05738622 **Image available**
LIGHTING SYSTEM

PUB. NO.: 10-021722 [JP 10021722 A]
PUBLISHED: January 23, 1998 (19980123)
INVENTOR(s): MOCHIZUKI NORITAKA
APPLICANT(s): CANON INC [000100] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 08-190110 [JP 96190110]
FILED: July 01, 1996 (19960701)

...JAPIO KEYWORD: **Light Emitting Diodes** , LED)

ABSTRACT

... controlling the luminance distribution and/or spectral distribution on the light emitting surface of a **back light** , and displaying a full **color** image with uniform **brightness** , high contrast, and high chroma...

... light source is incident on a light transmitting body 1, a light flux from a **plurality** of openings of a mask 2 arranged on one surface of the light transmitting body 1 is incident in a hologram element having a **plurality** of unit holograms 4-i through an array-shaped light collecting element, the light flux is spectrally diffracted in a **plurality** of light fluxes having different wave length with the unit hologram, and collected in the desired position at a **predetermined** spatial cycle. The light source has a light emitting element group comprising a **plurality** of light emitting elements having the central wave length of light emission in the central wave length of a **plurality** of light fluxes produced by the spectral diffraction of the unit hologram 4-i.

32/3,K/2 (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO

04466133 **Image available**
LIQUID CRYSTAL DISPLAY DEVICE

PUB. NO.: 06-110033 [JP 6110033 A]
PUBLISHED: April 22, 1994 (19940422)
INVENTOR(s): HIROSE SATOSHI
SUZUKI SHOJI
ENDO ATSUSHI
APPLICANT(s): MITSUBISHI ELECTRIC CORP [000601] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 04-257712 [JP 92257712]
FILED: September 28, 1992 (19920928)
JOURNAL: Section: P, Section No. 1773, Vol. 18, No. 387, Pg. 55, July 20, 1994 (19940720)

...JAPIO KEYWORD: **Light Emitting Diodes** , LED)

ABSTRACT

PURPOSE: To obtain the liquid crystal display device which has high resolution and high **brightness** by emitting lights the three primary **colors** in order by a **back light** source for **color** display and supplying pixel signals to transparent pixel electrodes in synchronism with the light emission times of the respective **colors** .

...

...CONSTITUTION: The **back light** source 28 is arranged behind a liquid crystal panel 26 and used for **color** display. On a substrate 19, red, green, and blue **LEDs** 30, 31, and 32 which emit the light of the primary

colors and a driving part 33 which makes them to illuminate in **specific** order, for example, field by field, for a **specific** time are provided. A transmission and diffusion plate 34 is arranged between the liquid crystal panel 26 and **back light** source 28 and makes the light of the **back light** source 28 uniform and planar. Then pixels supplied to the transparent pixel electrodes are varied in transmissivity in synchronism with the illumination times of the respective primary **colors** of the **back light** source 28, and a developed **color** and its **brightness** are determined by the transmissivity of the three successive primary **colors** ; and a **multi - colored** display is made by one pixel, which can displays one **color** display dot. Therefore, a display with high resolution and high **brightness** can be made.

32/3,K/3 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

008418235 **Image available**
WPI Acc No: 1990-305236/199040
XRPX Acc No: N90-234596
Paging receiver with code controlled variable colour **indicator - has transistorised visual alert and** back - lighting **circuits coupled to decoder for generating different** colours
Patent Assignee: MOTOROLA INC (MOTI)
Inventor: DELUCA M J; MCLAUGHLIN K T
Number of Countries: 018 Number of Patents: 008
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9010998	A	19900920				199040	B
US 4975694	A	19901204	US 89322876	A	19890314	199051	
EP 463093	A	19920102	EP 90905762	A	19900309	199202	
JP 4504195	W	19920723	JP 90505456	A	19900309	199236	
			WO 90US1254	A	19900309		
EP 463093	A4	19920422	EP 90905762	A	19900000	199521	
EP 463093	B1	19960110	EP 90905762	A	19900309	199607	
			WO 90US1254	A	19900309		
DE 69024793	E	19960222	DE 624793	A	19900309	199613	
			EP 90905762	A	19900309		
			WO 90US1254	A	19900309		
KR 9407045	B1	19940803	WO 90US1254	A	19900309	199620	
			KR 90702401	A	19901107		

Priority Applications (No Type Date): US 89322876 A 19890314
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9010998	A				
Designated States (National): DK FI JP KR NO					
Designated States (Regional): AT BE CH DE DK ES FR GB IT LU NL SE					
EP 463093	A				
Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE					
JP 4504195	W		9	H04B-007/26	Based on patent WO 9010998
EP 463093	B1 E		14	G08B-005/22	Based on patent WO 9010998
Designated States (Regional): AT BE CH DE DK FR GB IT LI LU NL SE					
DE 69024793	E			G08B-005/22	Based on patent EP 463093
					Based on patent WO 9010998
KR 9407045	B1			H04Q-007/00	

Paging receiver with code controlled variable colour **indicator**...

...**has transistorised visual alert and** back - lighting **circuits coupled to decoder for generating different** colours

...Abstract (Basic): signal is decoded by a decoder which is coupled to a code plug, visual alert, **backlighting** and display units. The address of the received decoded signal is compared with the address in the code plug. The visual alert unit produces different **colours** by **light emitting diodes** in a transistorised circuit whenever these addresses

are matched...

...Background **colour** of the liquid crystal display is determined by the **backlighting** circuit where the **colours** are selected according to the status of the pager or the received signals. Different **colours** are produced by modulating the voltage of an electroluminescent lamp acting as a load of...

...Abstract (Equivalent): comprising: receiving means for receiving and decoding an address wherein the paging receiver has a **predetermined** address with a **colour** sequence having a **plurality** of **colours** associated with the **predetermined** address, said receiving means generating a detect signal in response to the reception of the **predetermined** address; and illuminating means for generating a **plurality** of **colours** wherein said illuminating means, being responsive to the detect signal, generates a visual alert signal having the **colour** sequence associated with the **predetermined** address...

...Abstract (Equivalent): The paging receiver has an indicator capable of illuminating in one of a number of **colours** . The **colour** of illumination is selected in response to the address received by the pager...

...The indicator identifies the address by the **colour** illuminated...

...message is protected, read, about to be protected, or about to be deleted by the **colour** and **colour** sequence of the indicator. The **colour** indicator also indicates if the paging receiver is about to be turned off. The indicator may also serve as a **back - light** for a display when the paging receiver includes a display. Signals within the information to be displayed may change the **colour** or change the **intensity** of the **back - light** , these signals may also turn the **back - light** on or off. ADVANTAGE - Changes **colour** in response to address received by paging receiver...

...Title Terms: **COLOUR** ;

?